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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,203	06/20/2003	Grant M. Kloster	42P17058	8820
8791 7590 05/23/2007 BLAKELY SOKOLOFF TAYLOR & ZAFMAN 12400 WILSHIRE BOULEVARD SEVENTH FLOOR LOS ANGELES, CA 90025-1030			EXAMINER NGUYEN, KHIEM D	
			ART UNIT 2823	PAPER NUMBER
			MAIL DATE 05/23/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/600,203

Applicant(s)

KLOSTER ET AL.

Examiner

Khiem D. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-14, 16 and 30-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-14, 16 and 35-41 is/are allowed.
- 6) ☒ Claim(s) 30-34, 42 and 43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 03/12/07.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicants' submission filed on March 12th, 2007 has been entered. A new rejection is made as set forth in this Office Action. Claims (10-14, 16 and 30-43) are pending in the application.

Remarks

2. The indicated allowability of claims 30-34 is withdrawn in view of the newly discovered reference(s) to Knaus (U.S. Patent 5,763,498). Rejections based on the newly cited reference(s) follow.

Information Disclosure Statement

3. The Information Disclosure Statement filed on March 12th, 2007 has been considered.

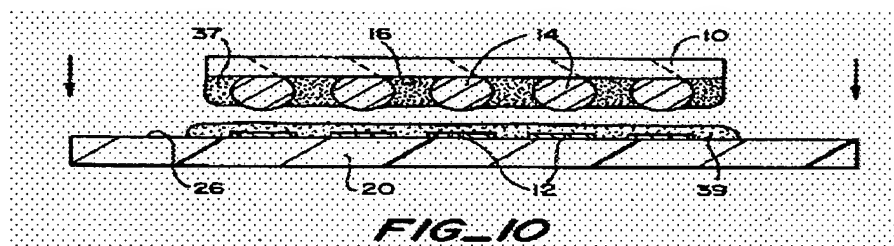
Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

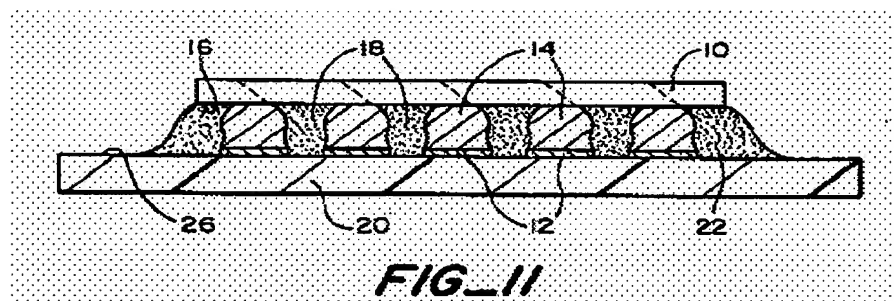
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 30-34 and 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Capote et al. (U.S. Patent 6,121,689) in view of Knaus (U.S. Patent 5,763,498).

In re claim 30, Capote discloses a method comprising: depositing a first material 39 between two substrates 10, 20 of a stacked device (FIGS. 10); and



depositing a second material 37 between the two substrates 10, 20 of the stacked device; and filling a portion of an area between the two substrates 10, 20 a layer as a product of the reaction between the first material and the second material (col. 9, lines 5-39 and FIGS. 10 and 11).



However, Capote et al. do not specifically disclose filling a portion of an area between the two substrates with a polymer foam as a product of the reaction between the first material and the second material.

Knaus discloses depositing a first material (i.e., silane-modified polyolefin, a silanol condensation catalyst, and other desired additives) (col. 9, lines 31-33) and injecting a second material (i.e., blowing agent) into two layers, and filling a portion of an area between the two layers with a polymer foam (col. 23, lines 13-15) as a product of

the reaction between the first material and the second material (col. 9, line 32 to col. 10, line 60).

As Knaus disclose, one of ordinary skill in the art would have been motivated to provide a polymer foam as a product of the reaction between the first material and the second material between the two substrates because the polymer foam requires only relatively simple, and inexpensive equipment to implement.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant(s) claimed invention was made to modify Capote et al. reference with a polymer foam as a product of the reaction between the first material and the second material as taught by Knaus since the polymer foam requires only relatively simple, and inexpensive equipment to implement (col. 6, lines 37-48, Knaus).

In re claim 31, as applied to claim 30 above, Capote et al. in combination with Knaus, discloses all claimed limitations including the limitation wherein depositing the first material 39 comprises one of: diffusing the first material into a portion of the area between the two substrates; injecting the first material into the portion of the area between the two substrates; spraying the first material into the portion of the area between the two substrates; or immersing the two substrates in the first material (col. 10, lines 2-12, Capote et al.).

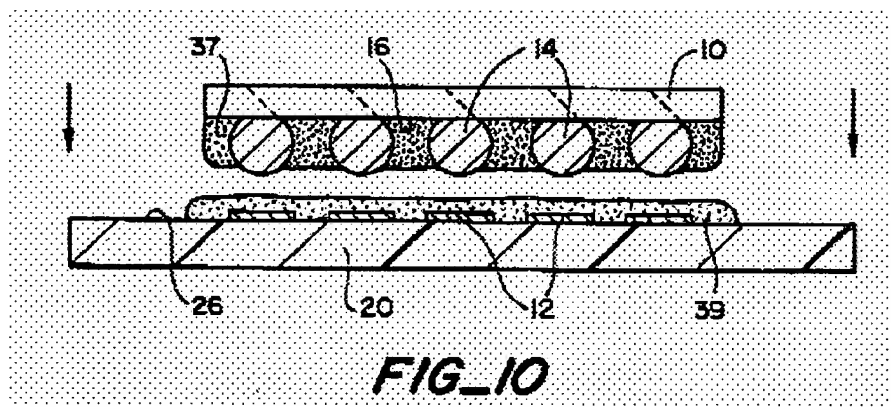
In re claim 32, as applied to claim 30 above, Capote et al. in combination with Knaus, discloses all claimed limitations including the limitation wherein the first material is selected from the group consisting of diisocyanate monomers, a diisocyanate end-

capped compliant oligomer, and p-toluenesulfonyl semicarbazide (col. 7, lines 7-30, Capote et al.).

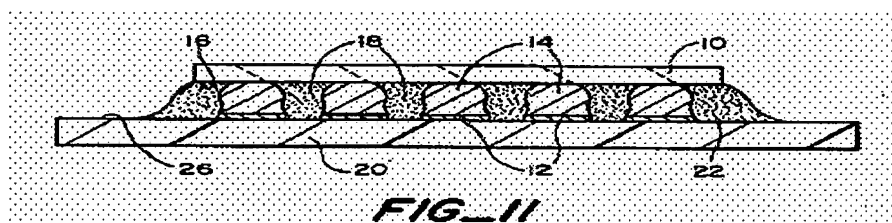
In re claim 33, as applied to claim 30 above, Capote et al. in combination with Knaus, discloses all claimed limitations including the limitation wherein depositing the second material comprises one of: diffusing the second material into a portion of the area between the two substrates; injecting the second material into the portion of the area between the two substrates; spraying the second material into the portion of the area between the two substrates; or immersing the two substrates in the second material (col. 9, lines 35-37, Knaus).

In re claim 34, as applied to claim 30 above, Capote et al. in combination with Knaus, discloses all claimed limitations including the limitation wherein the second material is selected from the group consisting of water, a hydroxyl end-capped oligomer, and a carboxylic acid end-capped polymer (col. 11, lines 35-53, Knaus).

In re claim 42, Capote discloses a method comprising: forming a layer of first material 39 between two substrates 10, 20 of a stacked device (FIG. 10); and



forming a layer of second material 37 between the two substrates of the stacked device, wherein the second material 37 causes a chemical reaction in a portion of the first material 39 (col. 9, lines 5-39 and FIGS. 10 and 11).



However, Capote et al. do not specifically disclose wherein the reaction produces a polymer foam.

Knaus discloses depositing a first material (i.e., silane-modified polyolefin, a silanol condensation catalyst, and other desired additives) (col. 9, lines 31-33) and injecting a second material (i.e., blowing agent) into two layers, and filling a portion of an area between the two layers with a polymer foam (col. 23, lines 13-15) as a product of the reaction between the first material and the second material (col. 9, line 32 to col. 10, line 60).

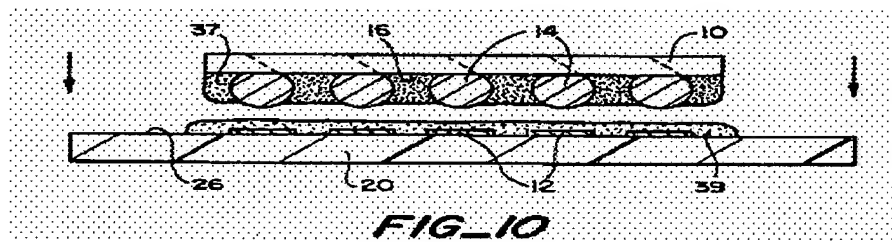
As Knaus disclose, one of ordinary skill in the art would have been motivated to provide a polymer foam as a product of the reaction between the first material and the second material between the two substrates because the polymer foam requires only relatively simple, and inexpensive equipment to implement.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant(s) claimed invention was made to modify Capote et al. reference with a polymer foam as a product of the reaction between the first material and the second

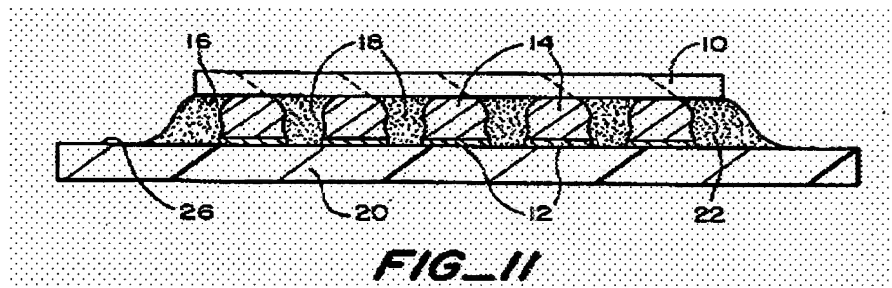
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material as taught by Knaus since the polymer foam requires only relatively simple, and inexpensive equipment to implement (col. 6, lines 37-48, Knaus).

In re claim 43, Capote discloses a method comprising: forming a layer of material 39 between two substrates 10, 20 of a stacked device (FIG. 10); and



exposing the layer 39 to one of a temperature differential or a pressure differential, wherein the a chemical reaction results in the portion of the layer of material (col. 9, lines 5-39 and FIGS. 10 and 11).



However, Capote et al. do not specifically disclose wherein the a chemical reaction results in the portion of the layer of material increasing in volume and wherein the reaction produces a polymer foam.

Knaus discloses depositing a first material (i.e., silane-modified polyolefin, a silanol condensation catalyst, and other desired additives) (col. 9, lines 31-33) and injecting a second material (i.e., blowing agent) into two layers, and filling a portion of an area between the two layers with a polymer foam (col. 23, lines 13-15) as a product of

the reaction between the first material and the second material wherein the a chemical reaction results in the portion of the layer of material increasing in volume (col. 12, lines 2-3) and (col. 9, line 32 to col. 10, line 60).

As **Knaus** disclose, one of ordinary skill in the art would have been motivated to provide a polymer foam as a product of the reaction between the first material and the second material between the two substrates because the polymer foam requires only relatively simple, and inexpensive equipment to implement.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant(s) claimed invention was made to modify Capote et al. reference with a polymer foam as a product of the reaction between the first material and the second material as taught by Knaus since the polymer foam requires only relatively simple, and inexpensive equipment to implement (col. 6, lines 37-48, Knaus).

Allowable Subject Matter

6. Claims 10-14, 16 and 35-41 were previously indicated as allowable over prior of record in the Office Action mailed on January 23rd, 2007.

Response to Applicants' Amendment and argument

7. Applicants' arguments with respect to claims 30-34 and 42-43 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khiem D. Nguyen whose telephone number is (571) 272-1865. The examiner can normally be reached on Monday-Friday (8:30 AM - 5:30 PM).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S. Smith can be reached on (571) 272-1907. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

K.N.
May 17, 2007

Brook Kebede
BROOK KEBEDE
PRIMARY EXAMINER